

ABSTRACT

The present invention relates to the identification and isolation of a novel family of ADP ribose ("ADPR) regulated calcium transmembrane channel polypeptides designated herein as "LTRPC2" (Long Transient Receptor Potential Channel).

- 5 Channels comprising these polypeptides open in response to concentrations of cytoplasmic ADPR in the micromolar range, exhibit enhanced activity in the presence of high intracellular levels of calcium, and do not respond to depletion or reduction in intracellular calcium stores. The invention further relates to the methods of utilizing LTRPC2 for binding, and the methods for modulating
- 10 LTRPC2 activity and for measuring LTRPC2 permeability. The invention further relates to the methods of modulating expression of LTRPC2.

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